Nicholas Caro Lopez

Burlington, ON | [LinkedIn](#) | [GitHub](#) | [Website](#)

EDUCATION

Toronto Metropolitan University (formerly Ryerson University) — Toronto, ON
Candidate for Bachelor of Science, Computer Science Co-op — *Sep 2022 – Present*
- **Concentration**: Software Engineering
- **GPA**: 4.07/4.33, *Dean's List*
- **Relevant Coursework**: Introduction to Software Engineering, Data Structures, Operating Systems I, Web Systems Development, Intro to Unix & C & C++, Probability and Statistics, Linear Algebra

EXPERIENCE

Software Developer Intern — May 2024 – Present
Dayforce (formerly Ceridian) — *Toronto, ON*
- Worked within a **9-person** team on migration of user authentication from a monolithic codebase into an identity-based microservice, enhancing scalability by **n%**
- Devised a secure endpoint for user-configured multi-factor authentication policies using **SQL dependency injection** and **.NET's model-view-controller design pattern**
- Implemented endpoint user interface retrieval using **ReactJS hooks** and **JavaScript promises**, enhancing data fetching efficiency

Software Engineer — Sep 2023 – Apr 2024
Laboratory for Translational Medicine, Toronto Metropolitan University — *Toronto, ON*
- Integrated an advanced image-based motion tracking extension into **open-source software**, 3D Slicer
- Cooperated effectively within an **Agile software development team**, optimizing workflow, visualizing progress, and delivering quality software solutions on time
- Engineered the **Backend Logic** of the extension, enabling multi-file deletion and processing within a single session and resulting in **33%** decrease in backend-related bug reports
- Created new graphical user interface functionality, enhancing usability by **28%** through **3D Slicer's Python API**

Teaching Assistant — May 2023 – Aug 2023
RoboThink Northwest Toronto — *Burlington, ON*
- Instructed a comprehensive curriculum introducing students to various programming concepts in Scratch
- Supported the STEM Teacher in effectively employing RoboThink materials for engaging and interactive lessons
- Enhanced students learning through administrative tasks such as organizing curriculum binders and printouts, improving productivity by **50%**
- Demonstrated attentiveness to individual students, providing personalized support and guidance to enhance their learning experience

PROJECTS

[Terrahacks Application Portal](#) — **Supabase | NextJS / ReactJS | Tailwind CSS**
- Developed an application portal for a **Hackathon**, swiftly handling the registration of **473** applicants and **250** participants
- Designed and implemented a forgot password **data flow diagram** with **Supabase's Authentication REST API**
- Streamlined the hacker acceptance/rejection process by leveraging a **SQL JOIN** query integrating data from tables using both **one-to-one** and **one-to-many relationships**

[Sudoku Solver](#) — **HTML | CSS | JavaScript**
- Defined an **Event Listener** and **Regular Expression** for capturing and restricting user input to digits 1-9
- Constructed an **interactive, responsive web page** utilizing **CSS Media Queries** and **Flexbox/Grid Layouts** for optimal user experience across various devices
- Employed a **Backtracking Algorithm** to solve every valid Sudoku board inputted by the user and displayed the solution dynamically on the web page

TECHNICAL SKILLS

Computer Languages: Python, Java, C, C#, SQL, HTML, CSS, JavaScript/TypeScript, Lisp, Perl, PHP, Ruby
Frameworks/Libraries: ReactJS, .NET, MySQL, Supabase, Tailwind CSS, Bootstrap, JQuery, PyQt
Developer Tools: Git/GitHub, Docker, Postman, Visual Studio/Code, Sublime Text, Jira, Trello, Unix/Linux
Spoken Languages: English, Spanish